IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-60.(Canceled)

61.(Currently Amended) A method of manufacturing a semiconductor device having a TFT formed [[on]] over a substrate, comprising the steps of:

forming a non-single crystal semiconductor film [[on]] over said substrate, and

emitting a laser beam from a laser oscillator;

splitting the laser beam into a first laser beam and a second laser beam; and

~~simultaneously~~ irradiating said non-single crystal semiconductor film with said [[a]] first laser beam ~~irradiated~~ from a front surface of said substrate and [[a]] with said second laser beam ~~irradiate~~ from a back surface of said substrate to thereby form a crystalline semiconductor film.

62.(Currently Amended) A method according to claim 61, wherein [[the]] an energy of said first laser beam is higher than [[the]] an energy of said second laser beam.

63.(Currently Amended) A method of manufacturing a semiconductor device having a TFT formed [[on]] over a substrate, comprising the steps of:

forming a non-single crystal semiconductor film [[on]] over said substrate;

~~introducing~~ coating a metal element for promoting [[the]] a crystallization of a semiconductor [[into]] over said non-single crystal semiconductor film; and

emitting a laser beam from a laser oscillator;

splitting the laser beam into a first laser beam and a second laser beam; and

~~simultaneously~~ irradiating said non-single crystal semiconductor film with said [[a]] first laser beam ~~irradiated~~ from a front surface of said substrate and [[a]] with said second laser beam ~~irradiated~~ from a back surface of said substrate to thereby form a crystalline semiconductor film.

64.(Currently Amended) A method according to claim 63, wherein [[the]] an energy of said first laser beam is higher than [[the]] an energy of said second laser beam.

65.(Currently Amended) A method of manufacturing as semiconductor device having a TFT formed [[on]] over a substrate, comprising the steps of:

forming a non-single crystal semiconductor film [[on]] over said substrate;

~~introducing~~ coating a metal element for promoting [[the]] a crystallization of a semiconductor [[into]] over said non-single crystal semiconductor film;

performing a heat treatment to said non-single crystal semiconductor film to thereby form a crystalline semiconductor film; [[and]]

emitting a laser beam from a laser oscillator;

splitting the laser beam into a first laser beam and a second laser beam; and

~~simultaneously~~ irradiating said crystalline semiconductor film with said [[a]] first laser beam ~~irradiated~~ from a front surface of said substrate ~~to said crystalline semiconductor film~~ and [[a]] with said second laser beam ~~irradiated~~ from a back surface of said substrate ~~to said crystalline semiconductor film~~.

66.(Currently Amended) A method according to claim 65, wherein [[the]] an energy of said first

laser beam is higher than [[the]] an energy of said second laser beam.

67.(Currently Amended) A method of manufacturing a semiconductor device comprising the steps of: ~~in which a laser beam is simultaneously irradiated from a front surface and a back surface of a substrate,~~

~~wherein a shape of a first laser beam irradiated from said front surface and of an irradiation region of a second laser beam irradiated from said back surface of said substrate are either a linear shape or a band shape,~~

~~wherein an irradiation region of said first laser beam and the irradiation region of said second laser beam are parallel with each other, and~~

~~wherein said substrate is moved in the direction of the width of said irradiation region while irradiating said first laser beam and said second laser beam~~

forming a non-single crystal semiconductor film over a substrate;

emitting a laser beam from a laser oscillator;

splitting the laser beam into a first laser beam and a second laser beam, wherein each of said first laser beam and said second laser beam is elongated in one direction on an irradiation surface; and

irradiating said non-single crystal semiconductor film with said first laser beam from a front surface of said substrate and with said second laser beam from a back surface of said substrate by relatively moving said substrate in a direction perpendicular to said one direction.

68.(Currently Amended) A method according to claim 67, ~~wherein a non-single crystal semiconductor film is formed over the front surface of said substrate, and~~ wherein [[the]] an energy of said first laser beam irradiated from the front surface is higher than [[the]] an energy of said second

laser beam irradiated from the back surface.

69.(Currently Amended) A method according to claim 67, ~~wherein a non-single crystal semiconductor film is formed over a surface of said substrate, and~~ wherein a ratio of [[the]] an energy of said first laser beam irradiated from the front surface and [[the]] an energy of said second laser beam irradiated from the back surface is between 1 to 1 and 10 to 1.

70.(Currently Amended) A method according to claim 67, wherein said substrate is arranged in a direction parallel to [[the]] a direction of gravity when said first laser beam and said second laser beam are being irradiated.

71.(Original) A method according to claim 67, wherein said substrate is disposed into an atmosphere that has a pressure of between an atmospheric pressure and 10^{-3}Pa.

72.(Original) A method according to claim 67, wherein said substrate is disposed into an atmosphere formed of gases such as Ar, H_2, N_2, He, or a gaseous mixture.

73.(Currently Amended) A method according to claim 67, wherein at least the irradiation region of said first laser beam and the irradiation region of said second laser beam in said substrate are heated between 10°C and 500°C.

74.(Original) A method according to claim 67, wherein said first laser beam and said second laser beam are excimer lasers.

75.(Original) A method according to claim 67, wherein said first laser beam and said second laser beam are XeCl excimer laser beams.

76.(Currently Amended) A method of manufacturing a semiconductor device comprising the steps of: ~~in which a laser beam is simultaneously irradiated from a front surface and a back surface of a substrate,~~

~~wherein a shape of said first laser beam irradiated from the front surface of said substrate and of an irradiation region of said second laser beam irradiated from the back surface of said substrate are either a linear shape or a band shape,~~

~~wherein an irradiation region of said first laser beam and the irradiation region of said second laser beam are parallel with each other,~~

~~wherein a width of the irradiation region of said first laser beam is smaller than a width of the irradiation region of said second laser beam irradiated from said back surface, and~~

~~wherein said substrate is moved in a direction of the width of said irradiation region while irradiating said first laser beam and said second laser beam~~

forming a non-single crystal semiconductor film over a substrate;

emitting a laser beam from a laser oscillator;

splitting the laser beam into a first laser beam and a second laser beam, wherein each of said first laser beam and said second laser beam is elongated in one direction on an irradiation surface; and

irradiating said non-single crystal semiconductor film with said first laser beam from a front surface of said substrate and with said second laser beam from a back surface of said substrate by relatively moving said substrate in a direction perpendicular to said one direction,

wherein a width of the first laser beam on the irradiation surface is smaller than a width of the second laser beam on the irradiation surface.

77.(Currently Amended) A method according to claim 76, ~~wherein a non-single crystal semiconductor film is formed over the front surface of said substrate, and~~ wherein [[the]] an energy of said first laser beam irradiated from the front surface is higher than [[the]] an energy of said second laser beam irradiated from the back surface.

78.(Currently Amended) A method according to claim 76, ~~wherein a non-single crystal semiconductor film is formed over a surface of said substrate, and~~ wherein a ratio of [[the]] an energy of said first laser beam irradiated from the front surface and [[the]] an energy of said second laser beam irradiated from the back surface is between 1 to 1 and 10 to 1.

79.(Currently Amended) A method according to claim 76, wherein said substrate is arranged in a direction parallel to [[the]] a direction of gravity when said first laser beam and said second laser beam are being irradiated.

80.(Withdrawn) A method according to claim 76, wherein said substrate is disposed into an atmosphere that has a pressure of between an atmospheric pressure and 10^{-3} Pa.

81.(Withdrawn) A method according to claim 76, wherein said substrate is disposed into an atmosphere formed of gases such as Ar, H_2, N_2, He, or a gaseous mixture.

82.(Currently Amended) A method according to claim 76, wherein at least the irradiation region of said first laser beam and the irradiation region of said second laser beam in said substrate are heated between 10°C and 500°C.

83.(Withdrawn) A method according to claim 76, wherein said first laser beam and said second laser beam are excimer laser beams.

84.(Withdrawn) A method according to claim 76, wherein said first laser beam and said second laser beam are XeCl excimer laser beams.

85.(Canceled)

86.(New) A method according to claim 61, wherein a half mirror is used in the step of splitting the laser beam.

87.(New) A method according to claim 63, wherein a half mirror is used in the step of splitting the laser beam.

88.(New) A method according to claim 65, wherein a half mirror is used in the step of splitting the laser beam.

89.(New) A method according to claim 67, wherein a half mirror is used in the step of splitting the laser beam.

90.(New) A method according to claim 76, wherein a half mirror is used in the step of splitting the laser beam.

91.(New) A method according to claim 61, wherein said semiconductor device is at least one of a personal computer, a video camera, a mobile computer, a goggle type display, a player that uses a recording medium, a digital camera, a portable telephone, and a projector.

92.(New) A method according to claim 63, wherein said semiconductor device is at least one of a personal computer, a video camera, a mobile computer, a goggle type display, a player that uses a recording medium, a digital camera, a portable telephone, and a projector.

93.(New) A method according to claim 65, wherein said semiconductor device is at least one of a personal computer, a video camera, a mobile computer, a goggle type display, a player that uses a recording medium, a digital camera, a portable telephone, and a projector.

94.(New) A method according to claim 67, wherein said semiconductor device is at least one of a personal computer, a video camera, a mobile computer, a goggle type display, a player that uses a recording medium, a digital camera, a portable telephone, and a projector.

95.(New) A method according to claim 76, wherein said semiconductor device is at least one of a personal computer, a video camera, a mobile computer, a goggle type display, a player that uses a recording medium, a digital camera, a portable telephone, and a projector.